

## FINANCIAL PERFORMANCE ANALYSIS OF IDBI USING CAMEL MODEL

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### ABSTRACT

*The Indian banking sector is the backbone of the Indian economy. Due to drastic changes in technology, the RBI have improved its quality in supervision of other banks. Banks now, follow the uniform financial rating system, CAMEL model for evaluating the performance. CAMEL evaluation is based on five parameters: Capital Adequacy, Asset Quality, Management Efficiency, Earning Capacity and Liquidity position of the banks. IDBI is a government-owned public sector banks; offering credit and financial facilities for the development of the fledging Indian industry. Researcher has analyzed the financial performance of IDBI using CAMEL mode. Based on the analysis, it is advisable to improve the capital adequacy, asset quality and management efficiency of the bank*

**KEYWORDS:** IDBI, CAMEL Model, Capital Adequacy, Asset Quality, Management Efficiency, Earning Capacity, Liquidity

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### INTRODUCTION

Economic development of a country depends more on real factors such as the industrial growth & development, modernization of agriculture, expansion of internal trade and foreign trade. Banks and its monetary mechanism plays a significant and crucial role by contributing in economic planning such as laying down of specific goals and allocating particular amount of money that constitute the economic policy of the government. A strong and resilient banking system is the foundation for sustainable economic growth. Performance of the banking sector is an effective measure and indicator to check the performance of any economy to a large extent. In this study, an attempt to measure financial performance of IDBI through CAMEL model.

### OBJECTIVES OF THE STUDY

The main objectives of the study are:

- To analyze the financial performance of IDBI using CAMEL model
- To offer suitable measures for improving efficiency of the bank

### METHODOLOGY

The study is mainly based on secondary data drawn from annual reports of the respective bank, i.e. IDBI, corporate database, website, journal, etc. The data is related to five years (2011 to 2015).

### Financial Performance of IDBI Using Camel Model

IDBI is a government-owned public sector banks; offering credit and financial facilities for the development of the fledging Indian industry. In India, CAMEL model is used for analyzing the performance and efficiency of banks. IDBI banks' financial performance is measured through CAMEL model; and evaluated on the following five parameters.

**Table 1**

|          |                              |  |
|----------|------------------------------|--|
| <b>C</b> | <b>Capital Adequacy</b>      | 1. Capital Adequacy Ratio<br>2. Debt-equity Ratio<br>3. Interest Coverage Ratio<br>4. Total Advances-to-total assets ratio |
| <b>A</b> | <b>Asset Quality</b>         | 1. Gross NPA-to-Gross Advances<br>2. Net NPA- to- Net Advances<br>3. Total Investment-to-total asset Ratio                 |
| <b>M</b> | <b>Management Efficiency</b> | 1. Return on Networth<br>2. Business per employee<br>3. Profit per employee  |
| <b>E</b> | <b>Earning Capacity</b>      | 1. Net Interest Margin<br>2. Non-interest Income to total funds  |
| <b>L</b> | <b>Liquidity</b>             | 1. Current Ratio<br>2. Liquid Assets-to-total Deposits Ratio<br>3. Liquid Assets-to-total assets Ratio                     |

### CAPITAL ADEQUACY RATIO

#### Capital Adequacy Ratio (CAR)

Capital Adequacy Ratio constitutes the most important indicator for evaluating the financial soundness of the banks. This indicates ratio of capital funds in relation to banks' assets. It measures the strength and stability of the bank. Table 2 shows Capital adequacy ratio of IDBI:

**Table 2: Capital Adequacy Ratio**

| <b>Year</b>               | <b>Ratio</b> |
|---------------------------|--------------|
| March 2011                | 13.64        |
| March 2012                | 14.58        |
| March 2013                | 13.13        |
| March 2014                | 13.13        |
| March 2015                | 11.76        |
| <b>Mean</b>               | <b>13.25</b> |
| <b>Standard Deviation</b> | <b>1.02</b>  |

**Source:** Compiled from the annual report of IDBI

The banks are required to maintain the capital adequacy ratio (CAR) as specified by RBI from time to time. As per the latest RBI norms, the banks should maintain a CAR of 9%. Table 2 reveals that over the period of five years, IDBI has maintained high CAR; with mean value of 13.25, and standard deviation 1.02.

#### Debt-Equity Ratio

Debt-equity ratio indicates the degrees of leverage of the bank. It indicates how much of the bank businesses financed through debt and how much through equity. It is the proportion of the creditors and depositors in the banking system.

**Table 3: Debt Equity Ratio**

| Year                      | Ratio        |
|---------------------------|--------------|
| March 2011                | 14.24        |
| March 2012                | 11.99        |
| March 2013                | 11.67        |
| March 2014                | 10.75        |
| March 2015                | 11.43        |
| <b>Mean</b>               | <b>12.02</b> |
| <b>Standard Deviation</b> | <b>1.32</b>  |

**Source:** Compiled from the annual report of IDBI

Table 3 shows that over the period of five years, Debt-equity ratio has decreased and revealed that it has relied more on cheaper funds. Mean value of 12.02 and standard deviation 1.32.

### **Interest Coverage Ratio (ICR)**

Interest coverage Ratio is a measure of a banks' ability to meet its interest payments over debt capital. The lower the interest coverage ratio, the higher the company's debt burden and the greater the possibility of bankruptcy or default. A higher ratio indicates a better financial health as it means that the company is more capable to meeting its interest obligations from operating earnings.

**Table 4: Interest Coverage Ratio**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 1.12        |
| March 2012                | 1.11        |
| March 2013                | 1.1         |
| March 2014                | 1.06        |
| March 2015                | 1.05        |
| <b>Mean</b>               | <b>1.09</b> |
| <b>Standard Deviation</b> | <b>0.03</b> |

**Source:** Compiled from the annual report of IDBI

Table 4 shows that over the period of five years, Interest coverage ratio has decreased and revealed that the bank has higher burden on interest expenses on outstanding debt. Mean value of 1.09, and standard deviation 0.03.

### **Total Advances-to-Total Asset Ratio**

Total advances to total assets ratio is the ratio of total advances to total assets. Higher ratio of advances/deposits (assets) is preferred to a lower one.

**Table 5: Total Advances-to-Total Assets Ratio**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 0.62        |
| March 2012                | 0.63        |
| March 2013                | 0.61        |
| March 2014                | 0.6         |
| March 2015                | 0.59        |
| <b>Mean</b>               | <b>0.61</b> |
| <b>Standard Deviation</b> | <b>0.02</b> |

**Source:** Compiled from the annual report of IDBI

Table 5 shows that over the period of five years, the bank have indicated the good aggressiveness in lending, leading to profits. Mean value of 0.61 and standard deviation 0.02.

## ASSET QUALITY

### Gross NPA to Gross Advances Ratio

This ratio is a measure of the quality of assets in a situation, where the management has not provided for loss on NPA. It indicates the gross NPA and total gross advances of the bank. Lower the ratio the better the quality of advances.

**Table 6: Gross NPA to Gross Advances Ratio**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 1.8         |
| March 2012                | 2.49        |
| March 2013                | 3.22        |
| March 2014                | 4.9         |
| March 2015                | 5.9         |
| <b>Mean</b>               | <b>3.66</b> |
| <b>Standard Deviation</b> | <b>1.7</b>  |

**Source:** Compiled from the annual report of IDBI

Table 6 shows gross NPA to gross advances of IDBI has increased over the period of five years, indicating the quality of advances should be improved. Mean value is 3.67, and standard deviation is 1.7.

### Net NPA to Net Advances Ratio

Net NPA levels help us to know the efficiency of credit risk management system of the bank. The ratio of Net NPAs to Net Advances is a measure of quality of assets of the bank. Hence, the lower the Net NPA level; the better is the quality of the assets of the bank.

**Table 7: Net NPA to Net Advances Ratio**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 1.06        |
| March 2012                | 1.61        |
| March 2013                | 1.58        |
| March 2014                | 2.48        |
| March 2015                | 2.88        |
| <b>Mean</b>               | <b>1.92</b> |
| <b>Standard Deviation</b> | <b>0.74</b> |

**Source:** Compiled from the annual report of IDBI

Table 7 shows Net NPA to net advances of IDBI has increased over the period of five years, indicating the banks inability in terms of recovering their advances. Mean value is 1.92, and standard deviation is 0.74.

### Total Investment to Total Asset Ratio

Total Investments to total assets ratio is the ratio to measure the total amount of investment made over in the total assets. Higher ratio indicates the banks' ability to safeguard from NPAs.

**Table 8: Total Investment to Total Asset Ratio**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 0.27        |
| March 2012                | 0.28        |
| March 2013                | 0.31        |
| March 2014                | 0.32        |
| March 2015                | 0.34        |
| <b>Mean</b>               | <b>0.30</b> |
| <b>Standard Deviation</b> | <b>0.03</b> |

**Source:** Compiled from the annual report of IDBI

Table 8 shows total investment to total asset of IDBI has increased over the period of five years, indicating the bank have high percentage of total assets locked up in investments. Mean value is 0.30 and standard deviation is 0.03.

## MANAGEMENT EFFICIENCY

### Return on Networth

Return on Networth is the amount earned by the equity shareholders equity for their investments in banks. It is a measure of the profitability of the bank.

**Table 9: Return on Networth**

| Year                            | Ratio        |
|---------------------------------|--------------|
| March 2011                      | 12.33        |
| March 2012                      | 11.41        |
| March 2013                      | 9.71         |
| March 2014                      | 5.25         |
| March 2015                      | 4.14         |
| <b>Mean</b>                     | <b>8.57</b>  |
| <b>Standard Deviation</b>       | <b>3.68</b>  |
| <b>Coefficient of Variation</b> | <b>13.54</b> |

**Source:** Compiled from the annual report of IDBI

Table 9 shows return on networth of IDBI. The ratio has decreased over the period of five years; thereby indicating lesser returns to shareholders' equity. Mean value is 8.57, and standard deviation is 3.68.

### Profit per Employee

Profit per employee measures the average profit generated by each employee of the bank. A higher value of this ratio indicates better productivity per employee of a bank.

**Table 10: Profit per Employee**

| Year                      | ₹(In Million) |
|---------------------------|---------------|
| March 2011                | 1.19          |
| March 2012                | 1.32          |
| March 2013                | 1.22          |
| March 2014                | 0.68          |
| March 2015                | 0.53          |
| <b>Mean</b>               | <b>0.99</b>   |
| <b>Standard Deviation</b> | <b>0.36</b>   |

**Source:** Compiled from the annual report of IDBI

Table 10 shows profit per employee of IDBI. Profit per employee have decreased over a period of five years; thereby indicating lesser profit through employee. Mean value is 0.99, and standard deviation is 0.36.

### Business per Employee

The average business could be an indicator of employees' productivity. A higher value of this ratio indicates better productivity per employee of a bank.

**Table 11: Business per Employee**

| Year                      | ₹(in Crores) |
|---------------------------|--------------|
| March 2011                | 23.5         |
| March 2012                | 23.9         |
| March 2013                | 25.7         |
| March 2014                | 24.7         |
| March 2015                | 26.2         |
| <b>Mean</b>               | <b>24.72</b> |
| <b>Standard Deviation</b> | <b>1.24</b>  |

**Source:** Compiled from the annual report of IDBI

Table 11 shows business per employee of IDBI. Business per employee has fluctuated over a period of five years; but has increased in the year 2015 when compared to the year 2014. Mean value is 24.72, and standard deviation is 1.24.

## EARNING CAPACITY

### Net Interest Margin

Net Interest Margin (NIM) is the difference between interest earned and interest expense of the banks. Interest income includes dividend income. Interest expended includes interest paid on deposits, loans from RBI, and other short-term and long-term loans.

**Table 12: Net Interest Margin**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 2.1         |
| March 2012                | 2           |
| March 2013                | 2.1         |
| March 2014                | 2.2         |
| March 2015                | 1.8         |
| <b>Mean</b>               | <b>2.04</b> |
| <b>Standard Deviation</b> | <b>0.15</b> |

**Source:** Compiled from the annual report of IDBI

Table 12 shows Net Interest Margin of IDBI. The ratio was decreased over a period of five years; showing negative sign towards the bank. Mean value is 2.04, and standard deviation is 0.15.

### Non-Interest Income to Total Funds

Non-interest Income to total funds measures the income from operations other than lending as a percentage of total funds. A bank's earnings quality reflects its profitability and sustainability of the same.

**Table 13: Non-Interest Income to Total Funds**

| Year                      | Ratio       |
|---------------------------|-------------|
| March 2011                | 0.08        |
| March 2012                | 0.13        |
| March 2013                | 0.11        |
| March 2014                | 0.04        |
| March 2015                | 1.05        |
| <b>Mean</b>               | <b>0.28</b> |
| <b>Standard Deviation</b> | <b>0.43</b> |

**Source:** Compiled from the annual report of IDBI

Table 13 shows the Non-interest Income to total funds. Non-interest income to total funds of IDBI has increased over a period of years; and thus, resulting in a good sign for the bank. Mean value is 0.28 and standard deviation is 0.43.

## LIQUIDITY

### Current Ratio

Current Ratio indicates the relationship between the current assets and current liabilities.

**Table 14: Current Ratio**

| Year                      | Ratio        |
|---------------------------|--------------|
| March 2011                | 0.02         |
| March 2012                | 0.03         |
| March 2013                | 0.03         |
| March 2014                | 0.03         |
| March 2015                | 0.03         |
| <b>Mean</b>               | <b>0.028</b> |
| <b>Standard Deviation</b> | <b>0.004</b> |

**Source:** Compiled from the annual report of IDBI

Table 14 show the current ratio of IDBI. Over a period of years, current ratio of IDBI has remained constant. Mean value is 0.028 and standard deviation is 0.004.

### Liquid Asset to Total Deposits

This ratio indicates that what percent of total deposits are held as liquid assets. This liquidity can be considered adequate enough to meet the immediate liabilities of the bank.

**Table 15: Liquid Assets to Deposit Ratio**

| Year                      | Ratio        |
|---------------------------|--------------|
| March 2011                | 0.064        |
| March 2012                | 0.06         |
| March 2013                | 0.072        |
| March 2014                | 0.085        |
| March 2015                | 0.115        |
| <b>Mean</b>               | <b>0.081</b> |
| <b>Standard Deviation</b> | <b>0.022</b> |

**Source:** Compiled from the annual report of IDBI

Table 15 shows the liquid assets to total deposits ratio of IDBI. Liquid assets to total deposits have increased over the period of years; this indicates liquidity position of the bank is good. Mean value is 0.081, and standard deviation is 0.022.

### Liquid Assets to Total Asset Ratio

Liquid assets to total asset ratio measures the overall liquidity position of the bank. The liquid asset includes cash in hand, balance with institution and money at call and short notice. The total assets include the revaluation of the asset.

**Table 16: Liquid Asset to Total Asset Ratio**

| Year                      | Ratio        |
|---------------------------|--------------|
| March 2011                | 0.051        |
| March 2012                | 0.041        |
| March 2013                | 0.055        |
| March 2014                | 0.062        |
| March 2015                | 0.083        |
| <b>Mean</b>               | <b>0.058</b> |
| <b>Standard Deviation</b> | <b>0.016</b> |

**Source:** Compiled from the annual report of IDBI

Table 16 shows liquid asset to total asset ratio of IDBI. Over a period of years, liquid assets have occupied a slight portion on total assets of the bank. But, it is advisable to increase the portion of liquid assets to total assets. Mean value is 0.058, and standard deviation is 0.016.

## CONCLUSIONS

Sound financial health plays a significant role in the success of any companies, particularly, the Banking companies. The study was focused to evaluate the financial performance of IDBI by applying CAMEL model. Various parameters like: Capital adequacy, management efficiency and liquidity ratios are used to measure its performance. The overall rating of bank performance is found to be efficient but it is advisable for the banks:

- To frame well documented loan policy and procedures.
- IDBI bank will be able to earn returns in the form of interest or profit; if it has maintained 0% NPA by way of lending, investing or creating quality assets.
- Banks were advised to reduce their NPAs. The bank has to check over the credit worthiness of the borrower before providing loans to them.
- Banks were advised to impart training programme among its employees for development and improvement in their knowledge; and nominate them for training programme in different foreign banks. Imparting knowledge, itself, will increase the business per employee and profit per employee of the bank.

It was found that the bank has considerable growth in net profits; and needs to improve its position with regard to asset quality and capital adequacy; improve its management efficiency and earning capacity.



## REFERENCES

1. Bhayani, S. (2006), "Performance of the New Indian Private Sector Banks: A Comparative Study". *Journal of Management Research*, 5(11), Pg. No. 53-70
2. Singh, H.K. (2008), "Financial Performance of Banks in India", *The IUP Journal of Bank Management*, 7(1), pp.50-62.
3. Makesh, K.G. (2008), "Financial Performance Analysis of Commercial Banks: A Comparison of Federal Bank, Dhanalakshmi Bank, and SBI", *Professional Banker*, 8(9), pp.39-44.
4. Pat, K.A. (2009), "Why Indian Banks are healthy in this Global Crisis?" *Economic and Political Weekly*, 44(17), pp.21-22.
5. Sharma Meera. (2010), "A cross-country study of Bank Failure Resolution", *Prajnan: Journal of Social and Management Sciences*, 29(1), pp.7-27.
6. Divya Priya, B. (2012), "A Camel Analysis of public and private sector banks with special reference to SBI and HDFC". *JM International Journal of Finance (JMIJF)*, 2(4), Pp.180-190
7. Divya Priya, B. and Revathi Bala, M. (2012), "Profitability Performance of SBI and HDFC – A Comparative Study". *International Journal of Innovations in Engineering and Management*, 1(1), pp.60-64.
8. Prasad, K.N. and Ravinder, G. (2012), "A CAMEL Model Analysis of Nationalised Banks in India", *International Journal of Trade and Commerce*, 1(1), pp.23-33.
9. Nilesh Lakhtaria, J. (2013), "A Comparative Study of the Selected Public Sector Banks through CAMEL Model", *Indian Journal of Research*, 2(4), pp.37-38.
10. Manjula, C. and Divya Priya, B. (2015). "Application of CAMEL Model to measure financial performance of IDBI". *International Journal of Marketing, Financial Services and Management Research*, 4(1), pp.95-103.
11. Gupti Ruchi. (2014). "An Analysis of Indian Public Sector Banks using CAMEL Approach", *IOSR Journal of Business and Management*, 16(1), pp.94-102.
12. Santhoshi Kumari, G. and Prasad, M. S. V. (2015), "A Comparative Study of the Financial Performances of Selected Public and Private Sector Banks", *The IUP Journal of Bank Management*, 14(4), pp.7-18.
13. Prabhjot Kaur. (2015), "A Financial Performance Analysis of the Indian Banking Sector using CAMEL Model", *The IUP Journal of Bank Management*, 14(4), pp.19-33.
14. Annual Reports of IDBI
15. Website
16. [www.idbi.com](http://www.idbi.com)
17. [www.rbi.org](http://www.rbi.org).
18. [www.moneycontrol.com](http://www.moneycontrol.com)
19. <http://www.investopedia.com>.

